3. No one antiseptic agent can be depended upon, in the strength at which it can be borne by the inflamed urethral mucous membrane, completely to sterilize the discharges and the suppurating surfaces. A judicious combination of several antiseptics, if not essential to success, is at least of considerable value.

4. The internal administration of salol in conjunction with copaiba and cubebs renders the urine aseptic and probably antiseptic, so that it acts as an exceptionally thorough and efficient antiseptic injection, shortening the duration of the disease and diminishing the frequency and severity of the complications.

5. The production of urinary asepsis by internal medication is of considerble value not only in the inflammatory affections of the genito-urinary tract, but in the preparation of the patient for operation upon those organs and in the after-treatment.

OTOLOGY.

UNDER THE CHARGE OF

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EAR DISEASE IN INFLUENZA.

PROFESSORS GRUBER and POLITZER, of Vienna, gave a short synopsis of their experience in ear affections during the recent epidemic of influenza, at a meeting of K. K. Gesellschaft der Aerzte, February 28, 1890 (*Präger med. Wochenschrift*, March 12, 1890). Professor Gruber stated that in the third week in December, 1889, numerous cases of middle-ear disease, of a purulent nature, presented themselves, both in the clinic and in private. These were of a severe type, and resembled the form usually found in connection with an infectious disease like scarlatina or pneumonia. Statistics for December, 1888, and January, 1889, showed that ninety-one cases of otitis media catarrhalis, and ninety-five cases of otitis media purulenta presented themselves to his attention, while in the same period of 1889 and 1890, *two hundred and fifty-three* cases of otitis media catarrhalis, and *two hundred and eighty-nine* of otitis media purulenta came under his notice. These cases were of the most intense form and ambilateral, which is unusual in purulent processes. The process was characterized by extraordinary hyperæmia, which extended to the neighboring osseous and soft tissues. The membrana tympani was more frequently than usual implicated from the beginning, and soon showed extravasation of blood in its tissue, and ecchymoses also appeared on the wall of the auditory canal near the membrana tympani. The discharge from the drum-cavity was also more or less hemorrhagic at first, but subsequently become copiously purulent. In six instances artificial perforation of the mastoid became necessary. The mastoid cells were found filled with pus, the bony structure broken down, and the pus cavity sometimes filled with granulations. In two cases burrowing abscesses formed. These grave symptoms ensued though the cases were treated carefully from the outset.

Professor Politzer limited his remarks to those cases in which the results of the influenza were suppuration of the middle ear, perforation of the membrana tympani, and abscess in the mastoid. In eighteen cases of abscess in the mastoid, ten cases were undoubtedly due to influenza-otitis. Typical symptoms occurred as follows: copious blennorrhœic discharge, swelling of the external auditory canal and surrounding parts, tenderness and swelling of the mastoid, and in most cases fever. These cases did not yield to antiphlogistic treatment, as apparently similar cases in other years had done. The pus cavity was found at a depth of ¼ to ½ cm. filled with granulations, or with greatly congested and rough mucous membrane, which easily bled when touched. These cavities were generally isolated, communicating only twice with the antrum mastoideum. In the ten cases operated on the discharge ceased in three or four days after the operation and the opening closed. In one case an abscess formed in the occipital region. In another case, affected with chronic Bright's disease, there was a fatal termination, post-mortem examination revealing extensive meningitis.

FORMS OF OTITIS FOLLOWING GRIPPE.

Under this title DR. HERMET presents his experience in ear diseases following the recent epidemic of influenza (*Gazette hebdomadaire de Méd. et Chirurgie*, March 8, 1890). He is of the opinion that the otitis of influenza differs from the ordinary type of inflammation of the middle ear. Its course is abnormal, its intensity greater, and serious complications more numerous. Examination of the ear reveals redness and swelling of the external auditory canal, and hyperæmia of the membrana tympani, with disappearance of its normal contours. In one case observed by Hermet, in a child, in which he was preparing to perform paracentesis of the membrane, vomiting on the part of the little patient ruptured the membrana. A bloody discharge from the drum cavity at once followed, coming out through the auditory canal, and a purulent discharge came into the mouth from the middle ear through the Eustachian tube. The pain continued unabated for three days after the spontaneous rupture of the membrana tympani. The discharge continued with great copiousness for two weeks, a feature noted in other cases of otitis media following grippe. Inoculations of the matter in these cases, performed on guinea-pigs, proved negative in result.

AURAL REFLEXES CAUSED BY A COLLECTION OF CERUMEN IN THE EXTERNAL AUDITORY CANAL.

The reflex disturbances noted in this case existed for several months, and consisted of pain, palpitations of the heart, twitchings in the head and nucha, and vertigo. They disappeared promptly and entirely by the extraction of a plug of cerumen from the ear, which was accidentally discovered in the ear. It had not interfered in any way with the hearing.—I. HERZOG, *Monatsschrift für Ohrenheilkunde*, May, 1889.

Exostosis in the External Auditory Canal.

Dr. Robert Barclay, of St. Louis, has given an account of an exostosis in the left auditory canal of a man, twenty-five years old, which acted as an obstruction to the outflow of pus from a chronic otitis media (*St. Louis Med. and Surg. Journal*, February, 1890). "The obstructing body was extremely hard, immovable, covered with a thin, glistening, pearly membrane, but not hyperæsthetic." As the tumor was increasing in size, a prognosis of a very unfavorable nature was given should further increase in the size of the exostosis cut off the escape of pus from the middle ear. It was proposed to remove the bony growth by means of a burr or reamer, run by the dental lathe. This was acceded to, and after the administration of chloroform, the canal was illuminated by lamplight. A long narrow burr, or reamer, tapering to a four-sided pyramidal point, $\frac{1}{32}$d of an inch in diameter, devised by Dr. Barclay, was adjusted to the handpiece of the surgical engine (S. S. White). The reamer was then directed from the middle point of the external groove above the exostosis inward and slightly downward until it was felt to emerge on the other side of the tumor. It was then pressed broadside, first backward and then forward, until the neck of the tumor was divided, when the tumor was removed with the foreign-body hooked curette. The base of the tumor was then stroked with the broadside of the reamer, from side to side, parallel to the surface of the normal canal wall, as closely to it as the soft tissues would permit. Syringing with hot water checked the hemorrhage. There were no bad sequelæ. The after-treatment consisted in cleansing with a solution of bichloride of mercury or with peroxide of hydrogen, followed by insufflations of boric acid. A complete cure was effected in one month.

Caries and Extraction of the Anvil; Etiology and Treatment of Chronic Suppuration of the Middle Ear.

The frequency of caries of the anvil and the necessity of the extraction of this ossicle in certain cases of chronic suppuration of the middle ear, are the subjects of the article with the above title, by Dr. Ludewig, of Halle. (*Archiv f. Ohrenheilkunde*, vol. xxix., March, 1890.)

The diagnosis of caries of the malleus, and the excision of the same, are comparatively easy. But the suppuration of the middle ear often continues after the diseased malleus is removed, though no other carious spot can be either felt or seen, in the tympanic cavity. "The anvil is, as a rule, not detectable by the eye or probe," and hence its disease not to be diagnosed with certainty; and yet not unfrequently disease of this bone is the only cause of continued suppuration in the ear. As the anvil has no further functional importance after the excision of the malleus, and as very often, after excision of the malleus, the anvil is syringed out in the after-treatment, Ludewig, as Sexton, of New York, has done for years, always removes the anvil, if present, after extraction of the malleus. All of Ludewig's operations, by the way, were performed last summer (1889), and as he appears to imply priority in this modification of the operation of excision of the ossicula auditus, he must be unaware that in this country Sexton has done it for years, and published accounts of his work (*Transactions American Otological Society* for 1886, p. 521; also Sexton *On the Ear*, p. 374). Dr. Ludewig publishes now accounts of thirty-two cases, nine of which are from the private practice of Schwartze. He also describes a special form of hook ("anvil hook") for removal of the anvil, which is not equal in any way to that of Sexton, already described elsewhere as early as 1886.

The results of the operation of hammer-anvil extraction in the thirty-two cases are as follows:

Suppuration cured in	20 instances.
With regeneration of the membrana tympani .	5 times.
Without " " " " .	15 "
Still under treatment	11 cases.

One patient died of meningitis and pyæmia from long-continued caries and cholesteatoma of the middle ear, and not as the result of the operation. The effect on the hearing was varied. In two cases it appears to have been made worse; in ten cases it was unaltered; in the remainder, *i. e.*, in twenty cases, it was improved, *e. g.*, in one case from fifteen centimetres to two or three metres, and in another from five centimetres to one metre. The tests were whispered numerals applied both before and after the operation.

In two instances facial paralysis followed the endeavors to extract the incus, or its remnant, from the attic by means of the attic hook. In the first instance recovery took place in the course of seven weeks; but in the second case the paralysis had not disappeared six months after its occurrence. It would seem from our experience with this operation that too much force was exercised in the application of the hook to the attic cavity.

Otitis Externa Hæmorrhagica.

Dr. Gorham Bacon, of New York, reports five cases of this disease, the only ones observed in two thousand five hundred aural patients. His conclusions are as follows:

"1. Otitis externa hæmorrhagica is a rare form of disease.

"2. It should be considered a disease *per se*, an inflammation of the external auditory canal.

"3. It occurs more frequently among the young, although it may be found in the case of those advanced in years.

"4. Males are more frequently affected than females. The left meatus is more frequently involved than the right. The pain is usually not severe.

"5. The vesicles are usually found on the inferior wall of the bony auditory canal, although they may be situated on the anterior or posterior walls, and even extend to the drum-head." (*Archives of Otology*, vol. xix., Jan. 1890.)

Such a condition of the external auditory canal and drum-head was seen, even in both ears, in numerous cases of influenza otitis media in the recent pandemic, as observed and reported by Haug, of Munich, and others.